DOCKET NO.: ISIS0063-100 (ISPH-0618)   **PATENT**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Karras and Koller**

Serial No.: **10/001,863**   Group Art Unit: **1635**

Filed: **November 19, 2001**   Examiner: **Epps Ford, Janet**

Title: **Antisense Modulation of Toll-Like Receptor 4 Expression**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

DECLARATION UNDER 37 CFR §1.131

We, James Karras and Erich Koller do hereby declare as follows:

1.   We are named co-inventors of U.S. application Serial Number 10/001,863 filed November 19, 2001 entitled "Antisense Modulation of Toll-Like Receptor 4 Expression."

2.   We collaborated on the experimental work described in this Declaration and attached Exhibit A, which is a true copy of oligonucleotide synthesis records of ISIS Pharmaceuticals, Inc., except that any dates have been redacted.

3.   All of the work described in this Declaration and attached Exhibit A were conducted in the United States before December 21, 2000, the publication date of Lorenz et al., WO 00/77204 A1 (hereinafter the "Lorenz reference").

4.   Exhibit A shows that we requested the synthesis of modified oligonucleotides that can inhibit the expression of Toll-like receptor (SEQ ID NO: 3) prior to December 21, 2000, the publication date of the Lorenz reference. These same oligonucleotides are identified in our

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present application (U.S. Serial No. 10/001,863) at page 81 and 82 (Table 1) as examples of oligonucleotides that can inhibit the expression of Toll-like receptor (SEQ ID NO: 3). Thus, we were in possession of the modified oligonucleotides that can inhibit the expression of Toll-like receptor (SEQ ID NO: 3) prior to the publication date of the Lorenz reference.

5.   We declare that all statements made herein are of our own knowledge are true and statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

_____   _____

James Karras   Date

_____   _____

Erich Koller   Date

Exh. A

![ISIS PHARMACEUTICALS logo] RESEARCH INFORMATICS

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Order Information for OrderID 1007!

○ Complete Order History ◉ Current Order Info

ISIS Number	Lot #	OrderID	Ordered By	Order Date	Amount Ordered	Syn #	Syn Status	Template #	Type	Barcode	Well	Synthesis Location
114625	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET
114626	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET
114627	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET
114628	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET
114629	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET
114630	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET
114631	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET
114632	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET
114633	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET
114634	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET
114635	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET
114636	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET
114637	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET
114638	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET
114639	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET
114640	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET
114641	1	100755	JKARRAS ▬▬	0.20 (UMOL)		1	P					PVILLIET

0.20

114642	1	100755	JKARRAS	██████	(UMOL)	1	P		PVILLIET
114643	1	100755	JKARRAS	██████	0.20 (UMOL)	1	P		PVILLIET
114644	1	100755	JKARRAS	██████	0.20 (UMOL)	1	P		PVILLIET
114645	1	100755	JKARRAS	██████	0.20 (UMOL)	1	P		PVILLIET
114646	1	100755	JKARRAS	██████	0.20 (UMOL)	1	P		PVILLIET
114647	1	100755	JKARRAS	██████	0.20 (UMOL)	1	P		PVILLIET
114648	1	100755	JKARRAS	██████	0.20 (UMOL)	1	P		PVILLIET
114649	1	100755	JKARRAS	██████	0.20 (UMOL)	1	P		PVILLIET
114650	1	100755	JKARRAS	██████	0.20 (UMOL)	1	P		PVILLIET
114651	1	100755	JKARRAS	██████	0.20 (UMOL)	1	P		PVILLIET
114652	1	100755	JKARRAS	██████	0.20 (UMOL)	1	P		PVILLIET
114653	1	100755	JKARRAS	██████	0.20 (UMOL)	1	P		PVILLIET
114654	1	100755	JKARRAS	██████	0.20 (UMOL)	1	P		PVILLIET

Status Code Key

Status Code	Description
AV	Available
C	Cancelled
CBIS	Imported from CBIS database
D	Delivered
F	Fail
P	Pass
Q ; Plate_Queue	Queued for synthesis
R	Requeued
S	Synthesis
U	Undetermined

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